

WHAT IS CLAIMED IS:

1. A method of drying a thermoplastic norbornene resin comprising:
drying said thermoplastic norbornene resin under at least one of a vacuum and
5 ordinary pressure; and
said drying removes atmospheric gas components and low-boiling-point organic
components contained in said thermoplastic norbornene resin.
2. The method according to Claim 1, wherein:
said drying under ordinary pressure is conducted at a temperature between 80 and
10 120°C; and
said drying under vacuum is conducted under a degree of vacuum of 20 Pa or lower
at a temperature between 80 and 120°C.
3. The method according to Claim 1, wherein the thermoplastic norbornene resin
contains, after said drying, N₂ of 20 ppm or lower, O₂ of 20 ppm or lower, H₂O of 1 ppm
15 or lower, low-boiling-point aliphatic organic components of 20 ppb or lower in total, and
low-boiling-point aromatic organic components of 20 ppb or lower in total.
4. The method according to Claim 2, wherein the thermoplastic norbornene resin
contains, after the drying, N₂ of 20 ppm or lower, O₂ of 20 ppm or lower, H₂O of 1 ppm
or lower, low-boiling-point aliphatic organic components of 20 ppb or lower in total, and
20 low-boiling-point aromatic organic components of 20 ppb or lower in total.

5. A plastic substrate for magnetic recording media, said plastic substrate being manufactured by injection molding a thermoplastic norbornene resin dried by the method described in Claim 1.

5 6. A plastic substrate for magnetic recording media, said plastic substrate being manufactured by injection molding said thermoplastic norbornene resin dried by the method described in Claim 2.

7. A plastic substrate for magnetic recording media, said plastic substrate being manufactured by injection molding said thermoplastic norbornene resin dried by the method described in Claim 3.

10 8. A plastic substrate for magnetic recording media, said plastic substrate being manufactured by injection molding said thermoplastic norbornene resin dried by the method described in Claim 4.

9. The plastic substrate according to Claim 5, wherein said plastic substrate contains, in a surface thereof, 100 or less rugged portions of $1\mu\text{m} \times 1\mu\text{m}$ or wider in area.

15 10. The plastic substrate according to Claim 5, wherein:
a straightness, Pa, in the radial direction of said plastic substrate, is $1\mu\text{m}$ or less;
a micro-waviness of said plastic substrate is 500 \AA or lower; and
an average surface roughness of said plastic substrate is 5 \AA or lower.

11. The plastic substrate according to Claim 9, wherein:

a straightness, Pa, in the radial direction of said plastic substrate, is $1\text{ }\mu\text{m}$ or less;

a micro-waviness of said plastic substrate is $500\text{ }\text{\AA}$ or lower; and

an average surface roughness of said plastic substrate is $5\text{ }\text{\AA}$ or lower.

5 12. A magnetic recording medium comprising:

said plastic substrate according to Claim 5;

a magnetic layer above said plastic substrate;

a protection layer on said magnetic layer; and

a lubricant layer on said protection layer.

10 13. The magnetic recording medium according to Claim 12, wherein said plastic substrate contains, in a surface thereof, 100 or less rugged portions of $1\text{ }\mu\text{m} \times 1\text{ }\mu\text{m}$ or wider in area.

14. The magnetic recording medium according to Claim 12, wherein:

a straightness, Pa, in the radial direction of said plastic substrate, is $1\text{ }\mu\text{m}$ or less;

15 a micro-waviness of said plastic substrate is $500\text{ }\text{\AA}$ or lower; and

an average surface roughness of said plastic substrate is $5\text{ }\text{\AA}$ or lower.

15. The magnetic recording medium according to Claim 13, wherein:

a straightness, Pa, in the radial direction of said plastic substrate, is $1\text{ }\mu\text{m}$ or less;

a micro-waviness of said plastic substrate is $500\text{ }\text{\AA}$ or lower; and

20 an average surface roughness of said plastic substrate is $5\text{ }\text{\AA}$ or lower.

16. The magnetic recording medium according to Claim 12, wherein an output of a strain gauge is 0.5 g or less at the end of continuous and high-speed head seek tests conducted for 24 hr on said magnetic recording medium, rotating at 4500 rpm using a low-flying-height head having a flying height of 1μ ".

5 17: A method of manufacturing a magnetic recording medium comprising:
drying a thermoplastic norbornene resin by the method described in Claim 1 to
produce a dried thermoplastic norbornene resin;
injection-molding said dried thermoplastic norbornene resin to form a plastic
substrate;
10 forming a magnetic layer above said plastic substrate;
forming a protection layer on said magnetic layer; and
forming a lubricant layer on said protection layer.

18. A method of manufacturing a magnetic recording medium comprising:
drying a thermoplastic norbornene resin by the method described in Claim 2 to
15 produce a dried thermoplastic norbornene resin;
injection-molding said dried thermoplastic norbornene resin to form a plastic
substrate;
forming a magnetic layer above said plastic substrate;
forming a protection layer on said magnetic layer; and
20 forming a lubricant layer on said protection layer.

19. A method of manufacturing a magnetic recording medium comprising:
drying a thermoplastic norbornene resin by the method described in Claim 3 to
produce a dried thermoplastic norbornene resin;

5 injection-molding said dried thermoplastic norbornene resin to form a plastic
substrate;

forming a magnetic layer above said plastic substrate;

forming a protection layer on said magnetic layer; and

forming a lubricant layer on said protection layer.

20. A method of manufacturing a magnetic recording medium comprising:
10 drying a thermoplastic norbornene resin by the method described in Claim 4 to
produce a dried thermoplastic norbornene resin;

injection-molding said dried thermoplastic norbornene resin to form a plastic
substrate;

forming a magnetic layer above said plastic substrate;

15 forming a protection layer on said magnetic layer; and

forming a lubricant layer on said protection layer.